

ORIGINAL



VAIL WATER COMPANY
1010 N Finance Center Dr., Suite 200, Tucson, AZ 85716 EIVED

2016 JAN 21 A 9:23

January 16th, 2016

AZ CORP COMMISSION DOCKET CONTROL

Arizona Corporation Commission Utilities Division Director 1200 West Washington Phoenix, AZ 85007-2996

Docket: W-01651B-12-0339 Decision# 73995

Action:

On or before February 1st of each year thereafter Vail will submit to the commission as a compliance item an annual report showing its collections under the CAP Surcharge that includes a calculation of any under/over recovery and a calculation of the CAP Long Term Storage Balance with detail showing each component's contribution to the change in balance from the prior year.

Dear Sir or Madam:

Attached is the CAP Surcharge Mechanism as required by the above referenced Decision, Section C, paragraph 62 and 63 for the year 2016. The amount Vail Water is requesting is 2.21/1000 gallons.

If you have any questions please do not hesitate to contact me at (520) 571-1958, extension 7105, via fax at (520) 571-1961, or at kvolpe@estesco.net.

Sincerely,

Christopher T. Volpe

Vice President

Attachments

Arizona Corporation Commission

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Page 2 of 2

Vail Water Company CAP Surcharge Mechanism Computation of CAP Surcharge 2016 Docket Number W-01651B-12-0339 Decision Number 73995

Computation of Commodity Surcharge [38] Total Net Costs to be Recovered [36]+[37] [39] Gallons sold in previous 12 months (in 1,000s) [40] Cost per 1,000 gallons [38]/[39]	Component 7 - Excess Water Loss Disallowance [27] Gallons sold in previous 12 months (in 1,000s) (provide support) [28] Accounted for Water Not Sold (in 1,000's) (provide support) [29] Total Gallons Sold and Accounted For (in 1,000's) [27] + [28] [30] Total Gallons Allowed (in 1,000's) (20) 90 [31] Gallons Pumped in Prior Year (in 1,000's) (provide support) [32] Water Loss (in 1,000's) [31] - [30] [33] Percent Water Loss [32]/[31]+[10] [34] Allowed Water Loss Percentage [35] Percent Reduction in Total Costs Recovered [34]-[33] (if positive then 0%) [36] Total Base Costs [5]+[8]+[11]+[16]+[19]+[26] [37] Water Loss Credit [35]x(36]	Component 6 - Gain on Sale of Long-Term Storage Credits [20] Long-term Storage Credits Sold (a.f.) (provide support) [21] Average Cost per a.f. (provide support) [22] Total Cost of Long-term Storage Credits Sold [20]x[21] [23] Total Sales of Long-term Storage Credits [24] Gain on Sale of Storage Credits [23]-[22] [25] Shared with Ratepayers (%) [26] Credit for Rate Payer's Share of Gain [24]x[25]x(-1)	Component 5 - Long-Term Storage Credit Recovery [17] Long-term Storage Credits Used (a.f.) (provide support) [18] Average Cost (provide support) [19] Total Cost [17]x[18]	Component 4 - Prior Year Under/(Over) Recovery [12] Total amount to be recovered via surcharge =[38] from prior year calc [13] Gallons sold in previous 12 months (in 1,000s) (provide support) [14] Prior year surcharge rate (per 1,000 gallons) = [40] from prior year [15] Amounts recovered via surcharge [13]x[14] [16] Prior Year Under (Over) recovery [12]-[15]	Component 3 - Periodic Unrecovered Recharge Credits [9] CAP Water Recharged (a.f.) [1]-[6] [10] CAP Rate Increase (per a.f.) = [4] [11] Total Recharge Credits for Future Use [9]x[10]	Component 2 - Tucson Water Wheeling Fees [6] CAP Water Delivered to Vall Service Territory (a.f.) [7] Wheeling fee (per a.f.) [8] Total Wheeling Fees	Component 1 - Variance from Combined CAP M&I Capital and CAP Delivery Charges included in Base Rates [1] CAP Allocation (a.f.) [2] CAP M&I Capital and Delivery Charges (per a.f.) using base year (test year CAP rate) [3] CAP M&I Capital and Delivery Charges (per a.f.) using next year's firm rate [4] CAP Rate Increase (decrease) [3]-[2] [5] Total CAP M&I Capital and Delivery Charges Increase(decrease) [4]x[5]
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776,631 351,000 2.21	241,418 wheeled water sold only not full year attached 2,184 243,602 270,668 263,964 May-Dec Wheeling timeframe attached (6,704) -2,54% 10,00% 0,00% 776,631	148.69 161.61 24,030 24,030 50.00%	161.61	525,085 TW avg. wheel cost over 8 months 241,418 8 months usage only (May-Dec) 2.08 501,360 23,725	757 78.13 (59,144)	1,100 for 2016 606.33 Tucson Water fee 2016 666,963	1,857 105,87 184,00 M & I recharge rate for 2016 78.13 145,087
	attached attached	attached attached	attached			attached attached	attached
	12 month 351,000 2,184 353,184 353,184 392,426 388,167 (4,259) -1.10% 10.00%			4 month credit 222,321.00			

annual projection/month 91.66667 1100/12

1	BEFORE THE ARIZONA CORPORATION COMMISSION
2	SUSAN BITTER SMITH Chairman
3	BOB STUMP Arizona Corporation Commission Commissioner DOCKETED
4	BOB BURNS Commissioner APR 2 \$ 2015
5	DOUG LITTLE Commissioner DOCKETED BY J J J
6	TOM FORESE Commissioner
7	
8	IN THE MATTER OF THE APPLICATION) DOCKET NO. W-01651B-12-0339 OF VAIL WATER COMPANY FOR A 75000
9	DETERMINATION OF THE FAIR VALUE ODECISION NO
10	OF ITS UTILITY PLANT AND PROPERTY ORDER AND FOR AN INCREASE IN ITS RATES ORDER
11	AND CHARGES BASED THEREON
12	
13	Open Meeting April 14 and 15, 2015
14	Phoenix, Arizona
15	BY THE COMMISSION:
16	FINDINGS OF FACT
17	Introduction
18	1. On November 19, 2014, pursuant to Decision No. 73995 (July 30, 2013), V
19	Company ("Vail" or "Company") filed with the Arizona Corporation Commission ("Con
20	the Company's proposed Central Arizona Project ("CAP") surcharge fees. The (

- Vail Water nmission") Company's Application was substantially revised on January 29, 2015.
- 2. Decision No. 73995 and the Amended Plan of Administration approved in the Decision authorized the direct delivery of CAP water to the Company's service area and created a surcharge mechanism to recover the cost of CAP water and its delivery. The Amended Plan of Administration requires the Company to file its first surcharge request prior to taking delivery of CAP water. Thereafter, the Company must file a report on or before February 1st of each year showing its

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collections under the CAP surcharge.¹ The first surcharge requires Commission approval. Thereafter, each surcharge will be administratively approved with an effective date of April 1 unless Commission Staff objects to the calculation or the increase is greater than \$1.00 per 1,000 gallons.

Background

- 3. The CAP was established by the Colorado River Basin Project Act of 1968 to transport water from the Colorado River to central and southern Arizona. Water is delivered to three Active Management Areas ("AMAs"), Phoenix, Pinal and Tucson. Members pay an annual commodity and delivery charge. In addition, members are allowed to recharge or store water from the annual CAP allotment to earn Long Term Storage Credits ("LTSCs") that may be sold or applied to future water purchases.
- 4. Vail is a 4,116-connection water company located in southern Pima County. Vail has been buying and recharging CAP water since 2000, and it is using the CAP water to meet the Company's recharge obligation. A recently-completed booster station and transmission line will allow the delivery of CAP water that has been wheeled by the City of Tucson to be delivered to the Company's service area.

Calculation of the CAP Surcharge Fee

- 5. Decision No. 73995 specified seven components of the CAP surcharge. "Once the total of the component costs have been determined, the CAP surcharge (per 1,000 gallons) will be calculated by dividing the total costs by the prior year's gallons sold (in 1,000s)." An illustrative exhibit was attached to the Decision and Amended Plan of Administration.
- 6. Vail's CAP surcharge mechanism calculations for the years 2014 and 2015 are attached hereto as Exhibit A and Exhibit B. No surcharge fee is requested for 2014 as the Company's entire allotment was recharged. The Company requests a 2015 CAP surcharge of \$2.08 per 1,000 gallons of

¹ In addition to requiring an annual filing on February 1, the Amended Plan of Administration also requires the Company "to make annual filings prior to the anniversary of the effective date of the initial CAP surcharge." The effective date of the initial CAP surcharge is April 1, 2015. Therefore, the due date of this filing will be April 1 each year thereafter. However, to avoid duplicative February 1 and April 1 annual filings, Staff will accept the Company's February 1 filing as satisfying both filing requirements.

usage. The surcharge will increase the monthly bill of the typical residential user with median usage of 5,500 gallons per month from \$33.90 to \$45.34, \$11.44, an increase of 33.75%.

7. Component No. 1 calculates the variance between the current CAP charge and the CAP base rate of \$105.87. Component 2 adds the City of Tucson's cost for wheeling the CAP water from the CAP canal to the Company's service area. Unrecovered recharge credits are deducted in Component 3. Component 4 consists of a true up of the prior year's under or over recovery. The cost of LTSCs is added in Component 5. Component 6 deducts the ratepayer's 50% share of any gain on the sale of LTSCs. Component 7 credits the account for water loss exceeding 10%. Finally, total net costs to be recovered are divided by the gallons sold (in 1,000s) in the previous year.

Conclusions and Recommendations

- 8. Staff concludes that the Company has duly filed a sufficient request to receive a CAP surcharge fee, as required by Decision No. 73995.
 - 9. Staff recommends approval of the CAP surcharge fee as described herein.
- 10. Staff recommends that the Company file, within seven days of a Decision in this matter, the CAP surcharge fee tariff consistent with the rate approved herein.
- 11. Staff recommends that the Company notify its customers, in a form acceptable to Staff, of the CAP surcharge fee tariff approved in the first bill in which this fee appears.
- 12. Staff recommends that the CAP surcharge fee authorized herein become effective for all billings after April 1, 2015.
 - 13. We find that Staff's recommendations are reasonable and should be adopted.

CONCLUSIONS OF LAW

- 1. The Company is a public water service corporation within the meaning of Article XV of the Arizona Constitution and A.R.S. §§ 40-250 and 40-252.
- 2. The Commission has jurisdiction over the Company and the subject matter of the application.
- 3. Approval of the proposed CAP water surcharge is consistent with the Commission's authority under the Arizona Constitution, Arizona ratemaking statutes and applicable case law.

75029 Decision No. ____

Decision No.

IT IS FURTHER ORDERED that Vail Water Company docket with the Commission as a 1 compliance matter, within seven (7) days of the effective date of this Decision, the Central Arizona 2 3 Project surcharge fee tariff consistent with the rate approved herein. IT IS FURTHER ORDERED that Vail Water Company shall notify its customers, in a form 4 acceptable to Staff, of the Central Arizona Project surcharge fee approved herein within 30 days from 5 the effective date of the Decision. 6 7 IT IS FURTHER ORDERED that this Decision shall become effective immediately. 8 9 BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION 10 11 COMMISSIONER 12 13 COMMISSIONI 14 15 IN WITNESS WHEREOF, I, JODI JERICH, Executive Director of the Arizona Corporation Commission, have hereunto, set my hand and 16 caused the official seal of this Commission to be affixed at the Capitol, 17 23rd the City of Phoenix, this 2015. 18 19 20 TIVE DIRECT 21 22 DISSENT: 23 DISSENT: 24 25 SMO:JK:sms\BES 26 27

1	SERVICE LIST FOR: Vail Water Company DOCKET NO. W-01651B-12-0339
2	
3	Mr. Michael Hallam Lewis Roca Rothgerber LLP
4	40 N. Central Ave. Phoenix Arizona 85004
5	Mr. Michael McNulty
6	40 N. Central Ave. Phoenix Arizona 85004
7	
8	Arizona Reporting Service, Inc. 2200 N. Central STE 502
9	Phoenix Arizona 85004
10	Mr. Manny Oros Operations Manager
11	Vail Water Company 14155 Via Rancho Del Lago
12	Vail Arizona 85641
13	Mr. Christopher Volpe
14	Vail Water Company 1010 N. Finance Center Dr., Ste 200
15	Tucson Arizona 85710
16	Mr. Steven M. Olea Director, Utilities Division
17	Arizona Corporation Commission 1200 West Washington Street
18	Phoenix, Arizona 85007
20	Ms. Janice M. Alward
21	Chief Counsel, Legal Division Arizona Corporation Commission
22	1200 West Washington Street Phoenix, Arizona 85007
23	Ms. Lynn Farmer
24	Director, Hearing Division Arizona Corporation Commission
25	1200 W. Washington Phoenix Arizona 85007-2927
26	FIDELIX AIZOIR 6500/-292/
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Exhibit A

Vail Water Company

CAP Surcharge Mechanism Computation of CAP Surcharge (Year 1) Docket Number W-01651B-12-0339

Decision Number 73995

AMENDED

Comp	onent 1 - Variance from Combined CAP M&I Capital and CAP Delivery Charges included in Base Rates		
[1]	CAP Allocation (a.f.)		1,857
[2]	CAP M&I Capital and Delivery Charges (per a.f.) using base year (test year CAP rate)	\$	105.87
[3]	CAP M&I Capital and Delivery Charges (per a.f.) using next year's firm rate	\$	166.00
[4]	CAP Rate Increase (decrease) [3]-[2]		60.13
[5]	Total CAP M&I Capital and Delivery Charges Increase(decrease) [4]x[1]	\$	111,661
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Com	ponent 2 - Tucson Water Wheeling Fees		
[6]	CAP Water Delivered to Vail Service Territory (a.f.)		-
[7]	Wheeling fee (per a.f.)	\$	606.33
[8]	Total Wheeling Fees	\$	_
1-1			
Com	ponent 3 - Periodic Unrecovered Recharge Credits		• .
[9]	CAP Water Recharged (a.f.) [1]-[6]		1,857
[10]	CAP Rate Increase (per a.f.) = [4]	\$	60.13
[11]	Total Recharge Credits for Future Use [9]x[10]	\$	(111,661)
-			
Com	ponent 4 - Prior Year Under/(Over) Recovery (Not applicable in Year 1)		
[12]	Total amount to be recovered via surcharge =[38] from prior year calc	\$	-
[13]	Gallons sold in previous 12 months (in 1,000s) (provide support)		-
[14]	Prior year surcharge rate (per 1,000 gallons) = [40] from prior year	\$	-
[15]	Amounts recovered via surcharge [13]x[14]	\$	
[16]	Prior Year Under (Over) recovery [12]-[15]	\$	-
Com	ponent 5 - Long-Term Storage Credit Recovery		
[17]	Long-term Storage Credits Used (a.f.) (provide support)		-
[18]	Average Cost (provide support)	\$	-
[19]	Total Cost [17]x[18]	\$	-
Com	ponent 6 - Gain on Sale of Long-Term Storage Credits		
[20]	Long-term Storage Credits Sold (a.f.) (provide support)	_	283.34
[21]	Average Cost per a.f. (provide support) (18)	\$	150.55
[22]	Total Cost of Long-term Storage Credits Sold [20]x[21]	\$	42,656.84
[23]	Total Sales of Long-term Storage Credits	\$	42,656.84
[24]	Gain on Sale of Storage Credits [23]-[22]	\$	•
[25]	Shared with Ratepayers (%)		50.00%
[26]	Credit for Rate Payer's Share of Gain [24]x[25]x(-1)	\$	-
Com	ponent 7 - Excess Water Loss Disallowance		
[27]	Gallons Sold in Prior Year (in 1,000's) (provide support)	et makes to	361,869
[28]	Accounted for Water Not Sold (in 1,000's) (provide support)		6,040
[29]	Total Gallons Sold and Accounted For (in 1,000's) [27] + [28]		367,909
[30]	Total Gallons Allowed (in 1,000s) [29]/0.90		408,788
[31]	Gallons Pumped in Prior Year (in 1,000's) (provide support)		390,119
[32]	Water Loss (in 1,000's) [31] - [30]		(18,669)
[33]	Percent Water Loss [32]/[31]x100		-4.79%
[34]	Allowed Water Loss Percentage		10.00%
[35]	Percent Reduction in Total Costs Recovered [34]-[33] (if positive then 0%)		0.00%
[36]		\$	-
[37]		\$	-
ر ٠٠٠	• • •		
Con	nputation of Commodity Surcharge	_	
[38]		\$	-
[39]			361,869
[40]	Cost per 1,000 gallons [38]/[39]	\$	-

Decision No. **75029**

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Exhibit B

Vail Water Company CAP Surcharge Mechanism

	Computation of CAP Surcharge (Year 2) Docket Number W-01651B-12-0339 Decision Number 73995		raye 2 01 2
Com	ponent 1 - Variance from Combined CAP M&I Capital and CAP Delivery Charges included in Base Rat	es	
[1]	CAP Allocation (a.f.)		1,857
[2]	CAP M&I Capital and Delivery Charges (per a.f.) using base year (test year CAP rate)	s	105.87
[3]	CAP M&I Capital and Delivery Charges (per a.f.) using next year's firm rate	\$	179.00
[4]	CAP Rate Increase (decrease) [3]-[2]	\$	73.13
[5]	Total CAP M&I Capital and Delivery Charges Increase(decrease) [4]x[5]	\$	135,802
	ponent 2 - Tucson Water Wheeling Fees		
[6]	CAP Water Delivered to Vail Service Territory (a.f.)		1,100
[7]	Wheeling fee (per a.f.)	\$	606.33
[8]	Total Wheeling Fees	\$	666,963
	ponent 3 - Periodic Unrecovered Recharge Credits		
[9]	CAP Water Recharged (a.f.) [1]-[6]		757
[10]	CAP Rate increase (per a.f.) = [4]	\$	73.13
[11]	Total Recharge Credits for Future Use [9]x[10]	\$	(55,359)
	ponent 4 - Prior Year Under/(Over) Recovery		
[12]	Total amount to be recovered via surcharge =[38] from prior year calc	\$	· -
[13]	Gallons sold in previous 12 months (in 1,000s) (provide support)		-
[14]	Prior year surcharge rate (per 1,000 gallons) = [40] from prior year	\$	-
[15]	Amounts recovered via surcharge [13]x[14]	<u>\$</u>	
[16]	Prior Year Under (Over) recovery [12]-[15]	\$	•
Com	conent 5 - Long-Term Storage Credit Recovery		
[17]	Long-term Storage Credits Used (a.f.) (provide support)		_
[18]	Average Cost (provide support)	\$	157.13
[19]	Total Cost [17]x[18]	\$	- 107.10
Com	conent 6 - Gain on Sale of Long-Term Storage Credits		
[20]	Long-term Storage Credits Sold (a.f.) (provide support)		240.58
[21]	Average Cost per a.f. (provide support) (18)	\$	157.13
[22]	Total Cost of Long-term Storage Credits Sold [20]x[21]	\$	
[23]	Total Sales of Long-term Storage Credits	\$	37,802
[24]	Gain on Sale of Storage Credits [23]-[22]	\$	37,802
[25]	Shared with Ratepayers (%)	J	- -
[26]	Credit for Rate Payer's Share of Gain [24]x[25]x(-1)	\$	50.00%
_		Φ	-
	nonent 7 - Excess Water Loss Disallowance		
[27]	Gallons sold in previous 12 months (in 1,000s) (provide support) (13)		359,895
[28]	Accounted for Water Not Sold (in 1,000's) (provide support)		1,116
[29]	Total Gallons Sold and Accounted For (in 1,000's) [27] + [28]		361,011
[30]	Total Gallons Allowed (in 1,000s) [29]/0.90		401,123
[31]	Gallons Pumped in Prior Year (in 1,000's) (provide support)		395,049
[32]	Water Loss (in 1,000's) [31] - [30]		(6,074)
[33]	Percent Water Loss [32]/[31]x100		-1.54%
[34]	Allowed Water Loss Percentage		10.00%
[35]	Percent Reduction in Total Costs Recovered [34]-[33] (if positive then 0%)		0.00%
[36]	Total Base Costs [5]+[8]+[11]+[16]+[19]+[26]	<u>\$</u>	747,406
[37]	Water Loss Credit [35]x[36]	\$	•
-	outation of Commodity Surcharge		
[38]	Total Net Costs to be Recovered [36]+[37]	\$	747,406
[39]	Gallons sold in previous 12 months (in 1,000s) (27)		359,895
[40]	Cost per 1,000 gallons [38]/[39]	\$	2.08
		Decision No	75029

COMPONENT 1 LINE 3

CAP M& I Capital and Delivery charges using next year firm rate

CENTRAL ARIZONA PROJECT FINAL 2015-2016 RATE SCHEDULE

	10-6	1 400	F0	OF W	A = -	-D 05		UCE.	سن	_			نعند	الخفيرية
<u>DELIVERY RATES FOR VARIOU</u>			ES	OF W	AII	EK SE	κV	ICE						
(The Letter Designations in the Formulas			Rate	Comp	one	nts Sho	wn	Below)						
			Fi	irm	F	irm				Advi	sor	y		
	<u>2</u>	014		<u>015</u>		016	2	017	2	018		019	2	020
Municipal and Industrial														
Long Term Subcontract (B+C) 1	\$	146	\$	157	\$	161	\$	166	\$	171	\$	174	\$	196
Non-Subcontract (A+B+C) ²		166		179		184		190		196		199		221
Recharge (A+B+C) ³		166		179		184		190		196		199		221
AWBA Interstate Recharge (A+B+C+D) ⁴		189		n.p.		n.p.		n.p.		n.p.		n.p.		n.p.
Federal (B+C) ⁵	\$	146	\$	157	\$	161	\$	166	\$	171	\$	174	\$	196
Agricultural														
Settlement Pool (C) ⁶	\$	67	\$	75	\$	76	\$	79	\$	81	\$	82	\$	99
Agricultural Incentives 6														
Meet Settlement Pool Goals		(14)		(18)		(15)		(14)		(12)		(9)		(22)
Meet AWBA/CAGRD GSF Goals	eksyleton odani	(2)		(2)		(2)		(2)		(2) (2)		(2) (2)		(2) (2)
Meet Recovery Goals		(2)		(2)		(2)		(2)		(2)		(2)		(2)
RATE CO	OMP	ONEN	TS											
Units =	\$/ac	re-foot												
Units =	= \$/ac	re-foot	F	irm	F	irm				Adv	isor	γ		
Units =	,	re-foot 2 <u>014</u>		irm <u>015</u>		irm 016	2	2017	2	Adv 018	_	y 019	2	2020
Capital Charges	,						2		2		_	019		
	,						<u>2</u>	<u>2017</u> 24	<u>2</u>		_		<u>2</u>	<u>2020</u> 25
Capital Charges (A) Municipal and Industrial - Long Term Subcontract ⁷ Delivery Charges	\$	2014 20	<u>2</u> '	<u>015</u> 22	\$	<u>016</u> 23	\$	24	\$	018 25	\$	019 25	\$	25
Capital Charges (A) Municipal and Industrial - Long Term Subcontract Delivery Charges (B) Fixed OM&R 8	2	201 <u>4</u> 20 79	2	22 82	2	23 85		24 87		25 90	2	019 25 92		25 97
Capital Charges (A) Municipal and Industrial - Long Term Subcontract ⁷ Delivery Charges (B) Fixed OM&R ⁸ (C) Pumping Energy Rate 1 ⁹	\$	2014 20 79 67	<u>2</u> '	22 82 75	\$	23 85 76	\$	24 87 79	\$	25 90 81	\$	25 92 82	\$	25 97 99
Capital Charges (A) Municipal and Industrial - Long Term Subcontract Delivery Charges (B) Fixed OM&R 8	\$	201 <u>4</u> 20 79	<u>2</u> '	22 82	\$	23 85	\$	24 87	\$	25 90	\$	019 25 92	\$	25 97
Capital Charges (A) Municipal and Industrial - Long Term Subcontract ⁷ Delivery Charges (B) Fixed OM&R ⁸ (C) Pumping Energy Rate 1 ⁹ (D) Property Tax Equivalency 10	\$ \$	2014 20 79 67 23	\$ \$	22 82 75 n.p.	\$ \$	23 85 76 n.p.	\$	24 87 79	\$	25 90 81	\$	25 92 82	\$	25 97 99
Capital Charges (A) Municipal and Industrial - Long Term Subcontract ⁷ Delivery Charges (B) Fixed OM&R ⁸ (C) Pumping Energy Rate 1 ⁹ (D) Property Tax Equivalency 10	\$ \$	20 79 67 23	\$ \$	22 82 75 n.p.	\$ \$	23 85 76 n.p.	\$	24 87 79	\$	90 81 n.p.	\$	019 25 92 82 n.p.	\$	25 97 99
Capital Charges (A) Municipal and Industrial - Long Term Subcontract ⁷ Delivery Charges (B) Fixed OM&R ⁸ (C) Pumping Energy Rate 1 ⁹ (D) Property Tax Equivalency 10	\$ \$ DUNI = \$/ac	2014 20 79 67 23	2 \$ \$ FER	22 82 75 n.p.	\$ \$ RAC	23 85 76 n.p.	\$	24 87 79	\$	25 90 81	\$ \$	019 25 92 82 n.p.	\$	25 97 99
Capital Charges (A) Municipal and Industrial - Long Term Subcontract ⁷ Delivery Charges (B) Fixed OM&R ⁸ (C) Pumping Energy Rate 1 ⁹ (D) Property Tax Equivalency ¹⁰ DIRECT UNDERGED Units =	\$ \$ \$ DUNI	2014 20 79 67 23 D WA ⁻ re-foot	\$ \$	22 82 75 n.p. STO	\$ \$ RAC	23 85 76 n.p.	\$	24 87 79 n.p.	\$	90 81 n.p. Adv	\$ \$ iso	25 92 82 n.p.	\$	25 97 99 n.p.
Capital Charges (A) Municipal and Industrial - Long Term Subcontract ⁷ Delivery Charges (B) Fixed OM&R ⁸ (C) Pumping Energy Rate 1 ⁹ (D) Property Tax Equivalency 10	\$ \$ DUNI = \$/ac	2014 20 79 67 23 D WA re-foot	2 \$ \$ FER	22 82 75 n.p. STO	\$ \$ RAC	23 85 76 n.p.	\$	24 87 79 n.p.	\$	25 90 81 n.p. Adv	\$ \$	25 92 82 n.p.	\$	25 97 99 n.p.
Capital Charges (A) Municipal and Industrial - Long Term Subcontract 7 Delivery Charges (B) Fixed OM&R 8 (C) Pumping Energy Rate 1 9 (D) Property Tax Equivalency 10 DIRECT UNDERGROUNTS Units =	\$ \$ \$ DUNI	2014 20 79 67 23 D WA ⁻ re-foot	\$ \$	22 82 75 n.p. STO	\$ \$ F 2	23 85 76 n.p.	\$	24 87 79 n.p.	\$	90 81 n.p. Adv	\$ \$ iso	25 92 82 n.p.	\$	25 97 99 n.p.
Capital Charges (A) Municipal and Industrial - Long Term Subcontract ⁷ Delivery Charges (B) Fixed OM&R ⁸ (C) Pumping Energy Rate 1 ⁹ (D) Property Tax Equivalency ¹⁰ DIRECT UNDERGROUNTS Units = Underground Water Storage O&M ¹¹ Phoenix AMA Tucson AMA Underground Water Storage Capital Charge ¹²	\$ \$ \$ \$ \$ \$ \$ \$ \$	2014 20 79 67 23 D WA re-foot 2014 8 15	\$ \$ F2	82 75 n.p. STO	\$ \$ \$ \$ \$	23 85 76 n.p.	\$ \$	24 87 79 n.p.	\$ \$	25 90 81 n.p. Adv	\$ \$ \$	92 82 n.p.	\$ \$	25 97 99 n.p. 2020
Capital Charges (A) Municipal and Industrial - Long Term Subcontract ⁷ Delivery Charges (B) Fixed OM&R ⁸ (C) Pumping Energy Rate 1 ⁹ (D) Property Tax Equivalency ¹⁰ DIRECT UNDERGROUNTS = Units = Underground Water Storage O&M ¹¹ Phoenix AMA Tucson AMA	\$ \$ \$ DUNI	2014 20 79 67 23 D WA re-foot 2014 8 15	\$ \$	22 82 75 n.p. STO	\$ \$ F 2	23 85 76 n.p.	\$	24 87 79 n.p.	\$	25 90 81 n.p. Adv	\$ \$ iso	92 82 n.p.	\$ \$	25 97 99 n.p. 2020

CENTRAL ARIZONA PROJECT FINAL 2015-2016 RATE SCHEDULE

NOTES:

- 1) Long-Term Municipal and Industrial (M&I) Subcontract include those users that hold a M&I subcontract.
- 2) Non-Subcontract includes M&I users that are taking water under an agreement other than a subcontract and may also be referred to as "Excess" water. It is administered according to CAP's Access to Excess policy.
- 3) Recharge includes the Arizona Water Banking Authority, CAGRD, BOR and M&I subcontract holders and other Arizona entities who have valid Arizona Department of Water Resources water storage permits and accrue long-term storage credits. It is administered according to CAP's Access to Excess policy.
- 4) The AWBA Interstate Recharge rate is currently not published (n.p.) and will be provided upon request as there is not any anticipation of water available for this class.
- 5) Federal water may also be referred to as "Indian" water.
- 6) Rate is the Pumping Energy Rate 1 component. Incentives may be earned for meeting delivery goals in three areas. Any incentives earned are applied to Settlement Pool deliveries.
- 7) For M&I subcontract water, the Capital Charge is paid on full allocation regardless of amount delivered and not included in delivery rates.
- 8) Fixed O&M costs divided by projected total water volumes plus components to fund capital replacements and a rate stabilization reserve. This amount is collected on all ordered water whether delivered or not.
- 9) The energy rate applies to all actual water volumes as opposed to scheduled. The calculation is pumping energy costs divided by projected volumes.
- 10) The rate is based upon the tax levy for the previous elapsed tax year divided by the average water deliveries (excluding Federal deliveries and water storage credits) for the three previous completed delivery years (e.g., for 2012, the tax equivalency is the levy for the 2010-2011 tax year divided by the average water deliveries for 2008, 2009 and 2010). This rate is currently not published (n.p.) and is available upon request, although it is not anticipated there will be water available for this class.
- 11) Underground Water Storage O&M is paid by all direct recharge customers using CAP recharge sites.
- 12) Underground Water Storage Capital Charge is paid by all direct recharge customers except AWBA for M&I firming, the CAGRD, municipal providers within the CAP service area and co-owners of CAWCD recharge facilities using no more than their share of capacity.

COMPONENT 2 LINE 6,7

(6) CAP Water Delivered to Vail Service Territory

(7) Wheeling fee (per a.f)



VAIL WATER COMPANY 14155 E Via Rancho del Lago, Box 100, Vail, AZ 85641 520.647.3679 520.647-3825 (Fax)

Oct 14th 2015

Melinda Whittington Central Arizona Project PO Box 43020 Phoenix, AZ 85080-3020 VIA Email: mwhittington@cap-az.com

RE:

Amended Scheduled Water Delivery Request

Year 2016

Vail Water Company

Dear Mary:

Below is a schedule of Vail Water's delivery of CAP allocation for 2016.

	Tucson Water (SAVSARP)	<u>Kai Farms</u>
Jan	100 AF	0
Feb	100 AF	0
Mar	100 AF	0
Apr	100 AF	0
May	100 AF	0
Jun	100 AF	0
Jul	100 AF	257 AF
Aug	100 AF	0
Sep	100AF	500 AF
Oct		0
Nov	100 AF	0
Dec	100 AF	0
TOTALS	1,100 AF	757 AF
TOTAL VAIL	WATER ALLOCATION-CAP WATER	1.857 AF

Estimated 2016 deliveries: 1857 AF. Estimated 2017 deliveries: 1857 AF.

Please contact Kip Volpe, 520-571-1958 x7105 with any questions or concerns.

Sincerely

Christopher T. Volpe Vice President

cc: Herb Kai, Wally Wilson, Tucson Water



January 15, 2016

Christopher Volpe Vail Water Company 1010 N Finance Center Drive, Suite 200 Tucson, AZ 85710

Subject: Tucson Water 2017 CAP Wheeling Rates

Dear Mr. Volpe:

As you are aware, under the terms of 2013 Agreement Between the Vail Water Company and the City of Tucson Relating to the Delivery of Central Arizona Project Water (the Agreement), Vail pays Tucson Water a volumetric charge for each unit of potable water delivered to Vail. As described in Section 3 of the Agreement, the volumetric charge includes a power charge for each unit of potable water delivered. The volumetric and power charges are to be calculated by Tucson Water on an annual basis according to Tucson Water's rate cycle.

For the 2017 rate cycle, which begins July 1, 2016, Tucson Water opts to hold Vail's volumetric and power rates at the current level of \$606.33 per acre-foot. Tucson Water will revisit these rates during the rate-setting process for 2018.

In the interim, Tucson Electric Power (TEP) has signaled its intent to request a rate increase which would take effect in early 2017. Although we do not anticipate any effect on power charges under the Agreement for the 2017 rate cycle, Tucson Water reserves the right to adjust power charges prior to the 2018 rate-setting process if TEP adjustments warrant such a decision.

As always, please let us know if you have any questions or concerns regarding the terms or management of the Agreement. Thank you for your continued partnership.

Sincerely,

Scott Clark Deputy Director

SC/kl

CC: Albert Elias, Assistant City Manager / Acting Director Sandy Elder, Deputy Director Andrew Greenhill, Intergovernmental Management Coordinator Melodee Loyer, Interim Financial Services Water Administrator Chris Avery, Assistant City Attorney

COMPONENT 4 LINE 13

Gallons sold in previous 12 months (in 1000's)

VAIL WATER COMPANY WELL CONSUMPTION (water pumped) 2015

Wheeled water totals			Dec-15	Nov-15	Oct-15	Sep-15	Aug-15	Jul-15	Jun-15	May-15	Apr-15	Mar-15	Feb-15	Jan-15	Consumption
256,682,184	787.73 acre feet	256,682,184	28,357,428	27,465,812	31,579,144	31,453,320	34,038,488	38,853,364	35,147,024	29,787,604					Consumption Wheeled water
1,741,000	88.58 acre feet	28,865,000	-	39,000		-	59,000	29,000	82,000	1,532,000	8,301,000	7,281,000	6,071,000	5,471,000	WELL #3
1	89.19 acre feet	29,063,000	•	1		-	-	Acceptance of the second	- 1960 - 1960 - 1960		-	44,000	11,105,000	17,914,000	Well #5
2,187,000	77.29 acre feet	25,184,000		1	-	-	-	-	7,000	2,180,000	13,372,000	6,216,000	3,003,000	406,000	WELL #6
3,354,000	148.45 acre feet	48,373,000		-		-	-	-	-	3,354,000	17,658,000	18,105,000	8,729,000	527,000	Well #8
263,964,184	1,191.24 acre feet	388,167,184	28,357,428	27,504,812	31,579,144	31,453,320	34,097,488	38,882,364	35,236,024	36,853,604	39,331,000	31,646,000	28,908,000	24,318,000	(B:f) Total Recovery = Total Pumped & Wheeled
481,600	6.70 acre feet	2,183,973	11,500	6,000	18,000	3,000	213,100	35,000	29,000	166,000	879,000	10,000	519,000	294,373	Main Flushing
241,417,647 Component 4 L(13)	1,077.18 acre feet	350,999,854	22,915,701	25,479,999	27,062,913	28,602,367	33,006,622	34,388,044	37,226,185	32,735,816	35,436,278	25,755,881	25,945,619	22,444,429	TOTAL SOLD

COMPONENT 5 LINE 18

Average cost

ADWR Long Term Storage Account Summary VAIL WATER COMPANY

WSP 73-558092.07 Facility Permit 74-583016.01

			PER UNIT
Year	AF	COST	COST
2015	tr		
BEG BALANCE	8,048.22	\$ 1,273,534	\$ 158.24
WATER ENTERING FACILITY	1,857.00	\$ 321,844	\$ 173.31
5% CUT TO AQUIFER	33.42		
OTHER ACQUISITIONS			
PURCHASED LTSC		\$ 	
Sub - Total	9,871.80	\$ 1,595,378	\$ 161.61
ANNUAL RECOVERY	1,188.61	\$ 192,091	\$ 161.61
LTSC RECOVERED	-	\$ 	
LTSC SOLD/LEASED (DLG)	148.69	\$ 24,030	\$ 161.61
			Component 5 L(18)
ENDING BALANCE	8,534.50	\$ 1,379,258	\$ 161.61

COMPONENT 6 LINE 20, 21

(20) Long term Storage Credits sold (a.f)

(21) Average cost (per a.f)

ADWR Long Term Storage Account Summary

VAIL WATER COMPANY

WSP 73-558092.07 Facility Permit 74-583016.01

				PER UNIT
Year	AF	COST		COST
2015				
BEG BALANCE	8,048.22	\$	1,273,534	\$ 158.24
WATER ENTERING FACILITY	1,857.00	\$	321,844	\$ 173.31
5% CUT TO AQUIFER	33.42			
OTHER ACQUISITIONS				
PURCHASED LTSC	· · · · · · · · · · · · · · · · · · ·	\$		
Sub - Total	9,871.80	\$	1,595,378	\$ 161.61
ANNUAL RECOVERY	1,188.61	\$	192,091	\$ 161.61
LTSC RECOVERED		\$	-	
LTSC SOLD/LEASED (DLG)	148.69	\$	24,030	\$ 161.61
	Component 6 L (20)		*	Component 6 L (21)
ENDING BALANCE	8,534.50	\$	1,379,258	\$ 161.61

AGREEMENT FOR TRANSFER OF LONG-TERM STORAGE CREDITS

THIS AGREEMENT is made and entered into effective the 15th day of December, 2015, by and between DEL LAGO GOLF LLC, an Arizona limited liability company (hereinafter "Del Lago") and VAIL WATER COMPANY, an Arizona corporation, (hereinafter "Owner").

WITNESSETH:

- 1. <u>Transfer of Long Term Storage Credits</u>: In consideration for the transfer to Del Lago of 148.69 acre feet of Owner's long term CAP water storage credits, Del Lago agrees to pay Owner the sum of Twenty-Four Thousand Twenty Nine Dollars and Seventy-Nine Cents (\$24,029.79) (\$161.61 per acre foot), which sum shall be payable in quarterly installments of no less than Six Thousand Seven Dollars and Forty-Five Cents (\$6,007.45), due on the following dates: January 1, 2016, April 1, 2016 and July 1, 2016 and one payment of no less than than Six Thousand Seven Dollars and Forty-Four Cents (\$6,007.44), due on October 1, 2016. Upon execution of this Agreement by both parties, Owner will file the Long-Term Storage Credit Transfer Form attached hereto as Exhibit "A" and by this reference incorporated herein with the Arizona Department of Water Resources.
- 2. Reconveyance of Long Term Storage Credits: In the event all of the assets or stock of Del Lago is sold, or Del Lago becomes insolvent, is adjudicated a bankrupt, or is dissolved either voluntarily or involuntarily, Del Lago shall immediately transfer the balance of the long-term storage credits conveyed hereunder back to Owner at the same price per acre foot upon which Del Lago purchased the long-term storage credits from Owner.
- 3. <u>Regulatory Filings</u>. Upon execution of this Agreement and filing of the Long-Term Storage Credit Transfer Form, Del Lago shall be responsible for all notifications and filings relating to the terms and conditions of this Agreement with any and all regulatory agencies including, but not limited to, the Arizona Department of Water Resources.
- 4. <u>Assignment</u>. Del Lago may not assign its rights under this Agreement or any interest herein without the prior written consent of Owner.
- 5. <u>Notices</u>: All notices, demands, elections or other communications required or permitted to be given pursuant to the terms and provisions hereof shall be either personally delivered or deposited in a regularly maintained receptacle of the United States mail, with first class postage prepaid, addressed to the parties as follows:

Owner:

Vail Water Company c/o Christopher T. Volpe 1010 North Finance Center Dr., Suite 200 Tucson, Arizona 85710 Del Lago:

Del Lago Golf LLC c/o Robert Neill 14155 East Via Rancho del Lago

Vail, Arizona 85641

Delivered notices shall be effective upon receipt. Mailed notices shall be effective upon the earlier of (i) actual receipt, or (ii) forty-eight hours after being postmarked in the United States.

- 6. <u>Entire Agreement</u>: This Agreement states the entire agreement between the parties and merges in this Agreement all statements, representations and covenants heretofore made, and any other agreements not incorporated herein are void and of no force and effect. This Agreement cannot be amended except by a writing executed by the parties.
- 7. <u>Binding Effect</u>: This Agreement will inure to the benefit of and bind the respective successors and permitted assigns of the parties hereto.
- 8. Governing Law: This Agreement is to be performed in the State of Arizona and shall be construed and enforced in accordance with the laws and statutes of the State of Arizona.

IN WITNESS WHEREOF, the parties have executed this Agreement effective on the day and year first above written.

"Owner"

"Del Lago"

VAIL WATER COMPANY

DEL LAGO GOLF LLC

By: MDC Arizona Corp., an Illinois corporation, Manager

By Myst 1. Clay

Christopher T. Volpe, Vice-President

Ita: Procido

ARIZONA DEPARTMENT OF WATER RESOURCES

3550 North Central Avc, Phoenix, Arizona 85012

Telephone (602) 771-8599 Fax (602) 771-8689

LONG-TERM STORAGE CREDIT TRANSFER FORM A.R.S. § 45-854.01 For Official Use Only

DATE RECEIVED:

The fee for a Long-Term Storage Credit Transfer is \$250.00 per water storage transfer. Only one transaction may be requested per form. Payment may be made by cash, check, or credit card.. Checks should be made payable to the Arizona Department of Water Resources. Failure to enclose the fee will cause the form to be returned. Fees for a Long-Term Credit Transfer are authorized by A.A.C. R12-15-104.

tic tee wat cause the form to be lettered. Pees for a bong-term	Clear Hauser are authorned by range, was 12 "
[FOR SELLER]	
Vall Water Company Name of Seller	70-411210.00 Long-Term Storage Account No.
Kip Volpe, 526-571-1958 x 7105 Contact Person/Telephone Number	72-55809 A Facility Permit Number (where source water was stored)
1010 N. Finance Center Drive Mailing Address	73 - 55809A.0700 Water Storage Permit Number (authority to store source
TULSON, Az. 85710 City/State/Zip	water)
Number of long-term storage credits (in acre-feet) transferred by	type(s) of water and year credits were earned.
Type: (AP acre-feet 148.69 ear earned 2015	
Type: acre-feet year earned	_
[FOR BUYER]	If the transfer includes long-term storage credits earned from the storage of Central Arizona Project (CAP) water in
Del Lago Golf, LLC Name of Buyer	an Active Management Area (AMA), please state:
Rame of Buyer Robert Neil Contact Person/Telephone Number	 The date of Buyer's formation (if Buyer is a legal entity):
Contact Person/Telephone Number	
14155 E. Via Rancho Del Lago Blvd. Mailing Address	The amount of groundwater withdrawn by Buyer in the AMA during the calendar year that the
Vail, Az. 85641	credits were earned:
City/State/Zip	m la tara Cala con al carlo de Parago
76-411310,000() Long-Term Storage Account No. (if any)	 The groundwater right number(s) the Buyer withdrew the groundwater pursuant to:
Pursuant to A.R.S. § 45-854.01(C), the director of the Arizona De any assignment of long-term storage credits in which the stored v storage credits as prescribed by A.R.S. § 45-852.01 if the assignee	yater would not have met the requirements for long-term
The undersigned hereby certify, under penalty of perjury, that the knowledge and belief, correct and complete and that they are author appears.	information contained in this report is, to the best of their ized to sign on behalf of the party for whom their signature
mes Man	held & roundall 12-18-15
Christopher T. Voloe Sheld	ed Signature for Buyer DATE ON J. Mandell
Title Title	

Central Arizona's Market for Long-Term Storage Credits

The State of Arizona is well-known for its progressive groundwater management code and programs ensuring that the desert state will have adequate water supplies for the future. The ability to store surplus renewable water supplies underground for recovery at a later time is a key component of Arizona's approach to aquifer management.

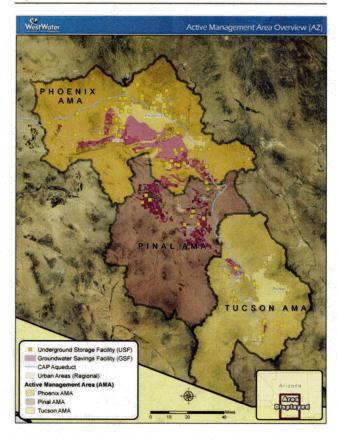
Established in 1986 and further refined in 1994, Arizona's Underground Water Storage and Recovery Program established the legal framework for storing renewable water supplies underground at permitted recharge facilities to create "long-term storage credits" that can be recovered at a later point in time. Long-term storage credits (LTSC) are created when eligible renewable water supplies are stored underground at a permitted recharge facility, and remain in storage for at least one calendar year. Each LTSC authorizes pumping of 1 acre-foot (AF) of renewable water stored underground. Recovery of a credit must occur through a permitted recovery well within the Active Management Area (AMA), irrigation nonexpansion area, or basin in which the LTSC was created.

In Central Arizona, a market for LTSC has emerged in recent years as an important mechanism for satisfying municipal and industrial water demands, firming surface water entitlements, and replenishing excess groundwater pumping.¹ Purchases and sales of LTSC have occurred in the Phoenix, Pinal, and Tucson AMAs. Figure 1 shows these market regions. While the LTSC market is nascent, it has several characteristics that may eventually allow it to develop into an efficient market with active trading:

- Growing water demand in a watershort region.
- · Homogenous, well-defined assets.
- A streamlined transfer process with little regulatory uncertainty.

This report provides a summary and review of LTSC trading activity and market prices in Central Arizona.

Figure 1: Phoenix, Pinal and Tucson AMA Overview



What is a Recharge Facility?

Central Arizona Project water, surface water, and reclaimed wastewater or "effluent" are eligible to be stored underground at permitted recharge facilities for later recovery and/or accumulation of LTSC. There are three types of recharge facilities where this storage can occur:

- Managed Underground Storage Facility (managed USF), where effluent storage activity is subject to at least a 50% reduction, called the "cut to the
 aquifer." Managed USFs are generally naturally water-transmissive areas such as ephemeral streambeds that allow percolation with minimal assistance
 from additional infrastructure.
- Constructed Underground Storage Facility (constructed USF), where most storage activity is subject to a 5% cut to the aquifer, with the exception of
 effluent for which there is no reduction. Constructed USFs generally store water through the use of injection wells or percolation basins.
- Groundwater Savings Facility (GSF), where most storage activity is subject to a 5% cut to the aquifer. At GSFs, water eligible for recharge is delivered to
 a groundwater user, who applies the delivered water "in-lieu" of groundwater pumping. GSFs are typically operated by irrigation districts able to receive
 and directly use the in-lieu renewable supplies.

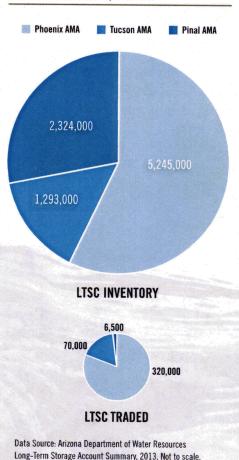
The storing entity must hold a recharge permit for the facility used to recharge eligible water supplies. All storage is subject to additional deduction for evaporation losses.

¹ Excess groundwater pumping is defined as withdrawals over and above the amounts deemed by the State to be consistent with the management goal of each Active Management Area.

LTSC Market Size and Trading Activity

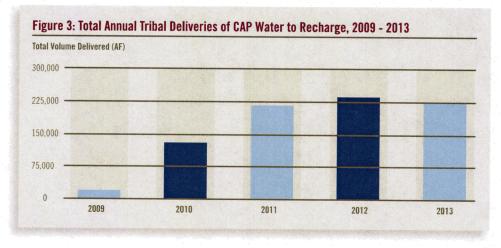
Presently, the LTSC market is relatively small. Since 2008, a total of approximately 397,000 LTSC have changed hands in market transactions in the Phoenix, Pinal, and Tucson AMAs. This trading volume represents 4 percent of the total 8,862,000 LTSC that have been accumulated in those regions. Figure 2 compares the total volume traded to the total inventory of existing LTSC by AMA. A total of approximately 5,245,000 LTSC are located in the Phoenix AMA, of which 320,000 have been traded. There are 1,293,000 LTSC in the Tucson AMA, 70,000 of which have been traded. There are 2,324,000 LTSC in the Pinal AMA, 6,500 of which have been traded. Although twenty-six percent of all LTSC accumulated are stored in the Pinal AMA, the total number of credits traded in the Pinal AMA (6,500) is only 2 percent all LTSC traded.

Figure 2: Total LTSC Inventory Compared to the Number of LTSC Traded, 2008-2014



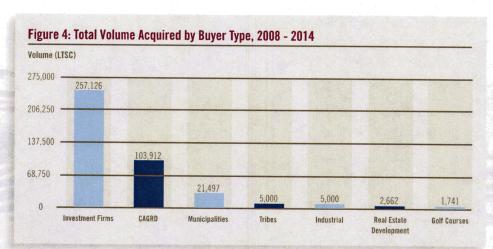
Sellers of LTSC

Sellers of LTSC have included municipalities, private utilities, land developers, and investment firms. In addition, several Native American tribes are recharging significant volumes of Central Arizona Project (CAP) water to accrue LTSC. One tribe, the Gila River Indian Community, has started actively marketing LTSC to generate revenue. Figure 3 shows the total annual tribal deliveries of CAP water to recharge over the past 5 years. As shown, tribal deliveries of CAP water to recharge facilities has increased from 17,000 AF in 2009 to an average of 227,000 AF/year from 2011 through 2013. As of 2013, the tribes held a combined total of approximately 563,000 LTSC. Pursuant to water rights settlement agreements, tribes do not pay CAP capital charges, and in some cases the United States pays the fixed OM&R portion of the CAP delivery cost. Thus, tribes' cost of creating LTSC may be low relative to other entities.



Buyers of LTSC

Diverse buyers have been purchasing LTSC. Buyers have historically included the Central Arizona Groundwater Replenishment District (CAGRD), investment firms, municipalities, tribes, real estate developers, and golf courses. Figure 4 displays the total volume acquired by buyer type. Investment firms have purchased the largest quantity of LTSC by volume. These firms' general strategy has been to profit from LTSC price appreciation over time as demand grows, and as other unused water supplies become less available. Until 2011 investment firms were actively buying LTSC, but recently began liquidating their holdings to realize profits from price appreciation, and to reallocate capital to investments with more favorable risk-adjusted returns. CAGRD, the second largest buyer, purchases LTSC to satisfy its obligation to replenish excess groundwater pumping by its member subdivisions and municipalities.



LTSC Market Prices

As previously described, the LTSC market is just beginning to develop and thus is relatively small. Since 2008, a total of \$41.4 million have changed hands in Phoenix AMA LTSC trades, equivalent to an average annual market size of \$5.9 million. The average annual size of the Tucson AMA LTSC market in terms of total dollars traded is \$1.3 million. For the Pinal AMA, only 2 LTSC sales have been completed to date.

Table 1 summarizes unit prices in individual sales of LTSC in the Phoenix and Tucson AMAs from 2008 through 2014. The Pinal AMA is not included in the table because only 2 sales have occurred there. As shown, prices in Phoenix AMA have ranged from \$100 to \$250/LTSC, and have averaged \$140/LTSC. In the Tucson AMA, prices have ranged from \$97 to \$198/LTSC, and averaged \$139/LTSC. For the 2 Pinal AMA trades, prices were \$145 and \$325/LTSC.

In general, sales of small quantities of LTSC are associated with higher per-unit prices. For example, the two highest-priced trades in the Phoenix AMA included a sale of 50 LTSC for \$200/LTSC, and a sale of 100 LTSC for \$250/LTSC. In contrast, the largest sale observed to date of 126,000 LTSC traded at a much lower price of \$125/LTSC. In the Pinal AMA, a sale of 1,500 LTSC was completed at a price of \$325/LTSC, while a larger sale of 5,000 LTSC traded at a price of \$145/LTSC. Inverse correlations between sale size and unit price are common in water rights markets as a result of lower demand for large water volumes.

Table 1: Summary of LTSC Unit Prices in the Phoenix and Tucson AMAs, 2008-2014

	Phoenix AMA	Tucson AMA
	Price (\$/LTSC)	Price (\$LTSC)
Average	\$140	\$139
Median	\$134	\$135
Min	\$100	\$97
Max	\$250	\$198
StDev	\$26	\$23
Count	41	21

LTSC Prices Correlated with CAP Costs

Historically, LTSC prices have tracked closely with CAP water delivery rates and the cost of generating LTSC by storing CAP water at a constructed USF. Figure 5 displays the strong correlation between the cost of generating LTSC, and LTSC market prices. As shown, prices have generally fallen between the cost of accruing LTSC at constructed USFs and GSFs. Along with rising CAP rates, LTSC market prices have appreciated over time. In both the Tucson and Phoenix AMAs, average annual LTSC prices have increased by approximately 4% yearly (see Figures 6 and 7). Table 2 shows the itemized costs associated with accruing LTSC by delivering and storing CAP water.

Figure 5: Correlation between LTSC Market Prices, CAP Rates, and the Cost of Accruing LTSC, 2008-2014

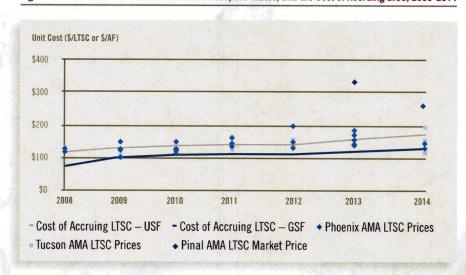


Table 2: Itemized Costs Associated with Accruing LTSC by Delivering and Storing CAP Water, 2014

Component	Constructed USF (\$/AF)	GSF (\$/AF)
Water Delivery Rate	\$146	\$146
CAP Underground Storage 0&M	\$15	
GSF Cost Share		(\$15)
Cut to Aquifer (5%)	\$8	\$7
Evaporation (1%)	\$2	-
LTSC Unit Cost	\$171	\$138

Figure 6: Trends in Phoenix AMA LTSC Market Prices and Total LTSC Volume Traded, 2008-2014

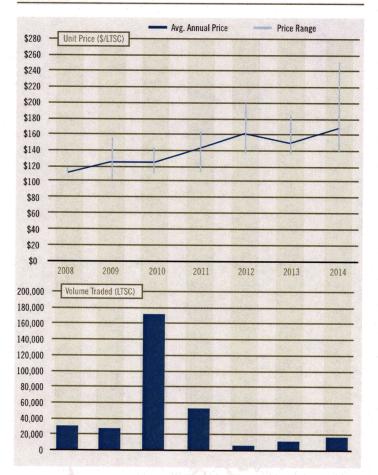
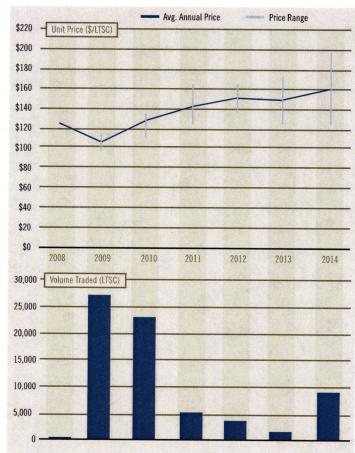


Figure 7: Trends in Tucson AMA LTSC Market Prices and Total LTSC Volume Traded, 2008-2014



Market Outlook

Trading activity of LTSC has been increasing and the market will continue to develop as water demands in Central Arizona grow, otherwise unused water supplies decrease, and new buyers enter the market. Anticipated Colorado River shortages may catalyze the LTSC market as water users pursue acquisitions of LTSC for firming of Colorado River entitlements.

Most recently in 2013, the Arizona Water Banking Authority (AWBA) proposed amendments to state law to expand the AWBA's ability to purchase LTSC in response to reductions in excess CAP water supplies.

Market prices for LTSC are anticipated to continue increasing in correlation with CAP delivery charges and the cost of creating LTSC. Based on CAP's firm water delivery and recharge rates, the average LTSC price in 2015 is projected to be between \$157 and \$183/LTSC with prices continuing to trend upward to \$195 to \$225/LTSC by 2020 based on published CAP advisory rates.



ABOUT WESTWATER RESEARCH

WestWater Research is the leading firm in the water rights industry. WestWater specializes in transaction advisory services, water right valuations and appraisals, marketing services, water resource economics, and investment services. Since its inception in 2001, WWR has advised clients in every western state, including Alaska and Texas, on various water rights projects. We are forging new markets and developing innovative solutions to western water scarcity. Our team excels at finding creative solutions to complex water marketing issues.

The data on LTSC prices and trading volumes summarized in this document are drawn from the Waterlitix database maintained by WestWater Research, which contains comprehensive and verified information on market transactions of LTSC.

Visit us at www.waterexchange.com or call 602.595.7009.

COMPONENT 7 LINE 27,28,31

- (27) Gallons sold in previous 12 months (in 1,000's)
- (28) Accounted for Water Not Sold (in 1,000's)
- (31) Gallons pumped in Prior Year (in 1,000's)

VAIL WATER COMPANY WELL CONSUMPTION (water pumped) 2015

TOTAL	TOTAL SOLD	22,444,429	25,945,619	25,755,881	35,436,278	32,735,816	37,226,185	34,388,044	33,006,622	28,602,367	27,062,913	25,479,999	22,915,701
Main	Flushing	294,373	519,000	10,000	879,000	166,000	29,000	35,000	213,100	3,000	18,000	9'000'9	11,500
(B:f) Total Recovery =	Total Pumped & Wheeled	24,318,000	28,908,000	31,646,000	39,331,000	36,853,604	35,236,024	38,882,364	34,097,488	31,453,320	31,579,144	27,504,812	28,357,428
-	T Well #8	527,000	8,729,000	18,105,000	17,658,000	3,354,000					-		1
	WELL #6	406,000	3,003,000	6,216,000	13,372,000	2,180,000	2,000			-			-
	Well #5	17,914,000	11,105,000	44,000	-	-	-	-	-			- The Section 1	•
	WELL #3	5,471,000	6,071,000	7,281,000	8,301,000	1,532,000	82,000	29,000	29,000	-	-	39,000	•
	Wheeled water				7	29,787,604	35,147,024	38,853,364	34,038,488	31,453,320	31,579,144	27,465,812	28,357,428
	Consumption	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15

Annual Totals	256,682,184 28,865,000	28,865,000	29,063,000	25,184,000	48,373,000	388,167,184	2,183,973	350,999,854
						line (31)	line (28)	line (27)
	787.73	88.58	89.19	77.29	148.45	1,191.24	6.70	1,077.18
	acre feet	acre feet	acre feet	acre feet	acre feet	acre feet	acre feet	acre feet
Wheeling Totals only	256,682,184	1,741,000	· · · · · · · · · · · · · · · · · · ·	2,187,000	3,354,000	263,964,184	481,600	241,417,647
					0	component 7		component 7
						line (31)		line (27)